

Panama Canal – New Locks and New Opportunities?

Robert Harrison
Center for Transportation Research





State Economies and Transportation

- GDP in 2010 Dollars
- California 13.1%; Texas 8.3%; New York 8.0%
- Texas has more transportation corridors
- Critical national role – TxDOT
- Gateways, corridors and hubs
- Two Megaregions
- Class 1 Rail networks and strategies reflect a system-wide planning



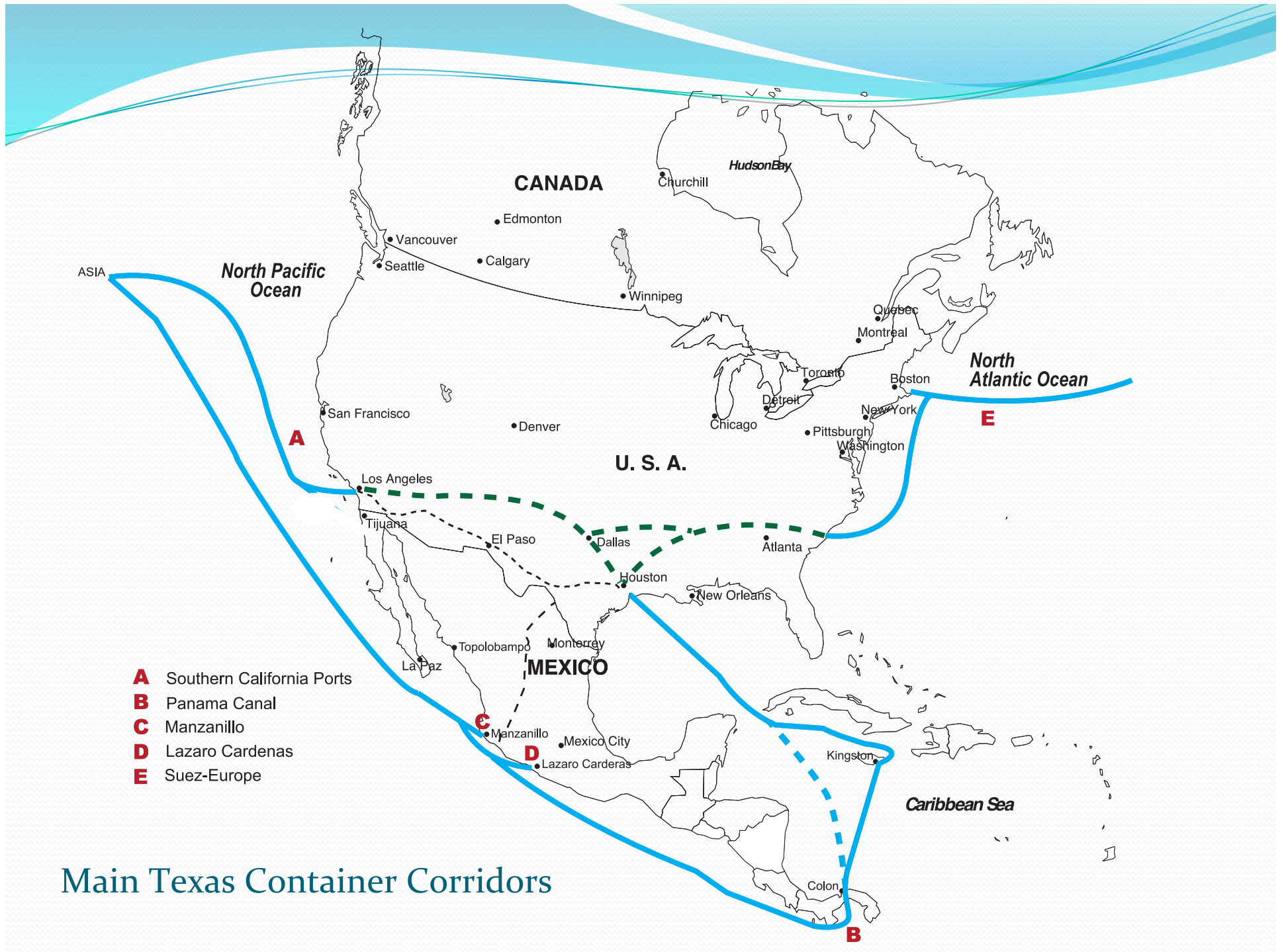
Texas Imports and Exports

- 2010 Census Data - \$ Billion
- Imports \$ 207 (16% US Total)
- Exports \$ 265 (14 % US Total)
- Aggregate \$ 472, California \$ 470
- Modal corridors: pipelines, highways, rail, deep water ports, intra-coastal waterway, air freight
- These combine to form the domestic supply chains and hubs driving big freight flows



Global Trade

- 1990s NAFTA was a US and Texas Focus
- 2000-2012 Global Trade becomes significant and impacts US and Texas trade corridors at several deep water ports and air hubs
- Larger Panama Canal locks raise efficiencies for Savannah and Charleston, Florida, and Gulf Port Asian imports and exports
- Canal Authority claims it is a “game changer”

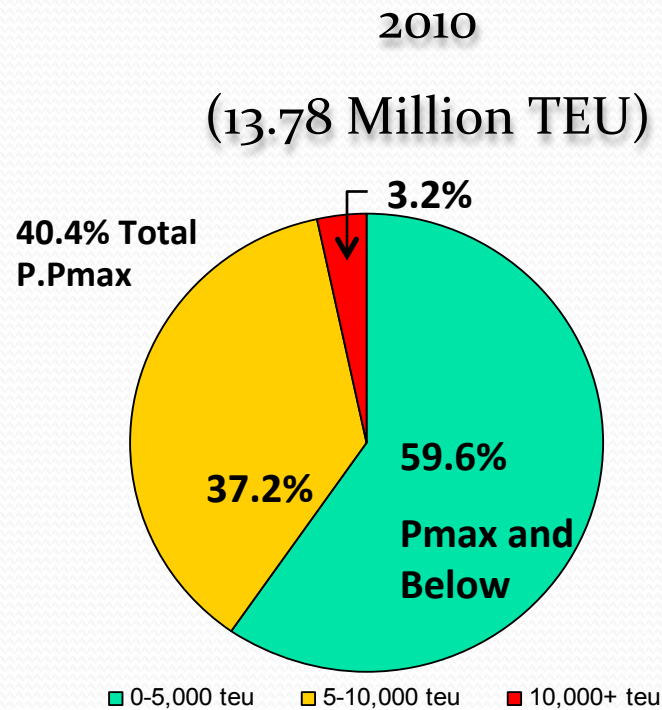


Main Texas Container Corridors

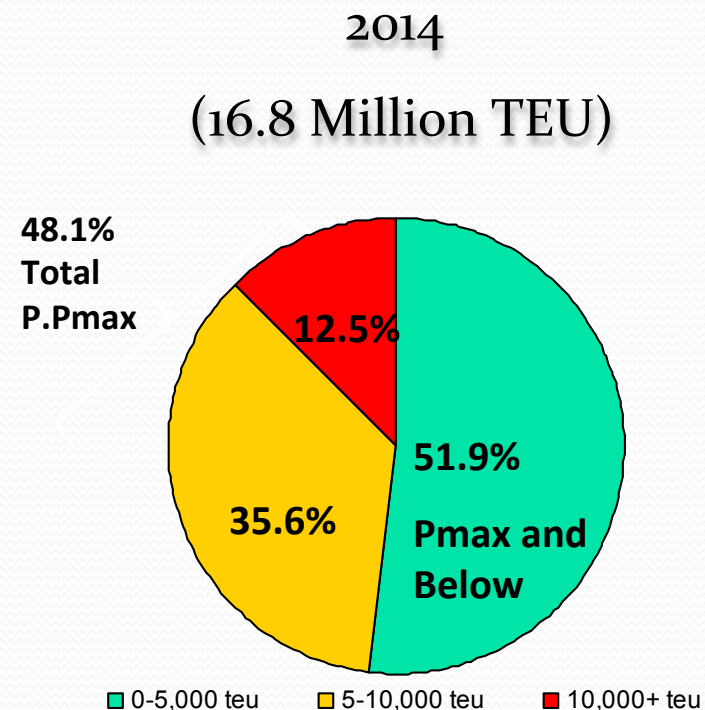
The Panama Canal - 2011



Container Fleet Capacity and Vessel Size Composition



949 Panamax vessels
775 Post Panamax vessels



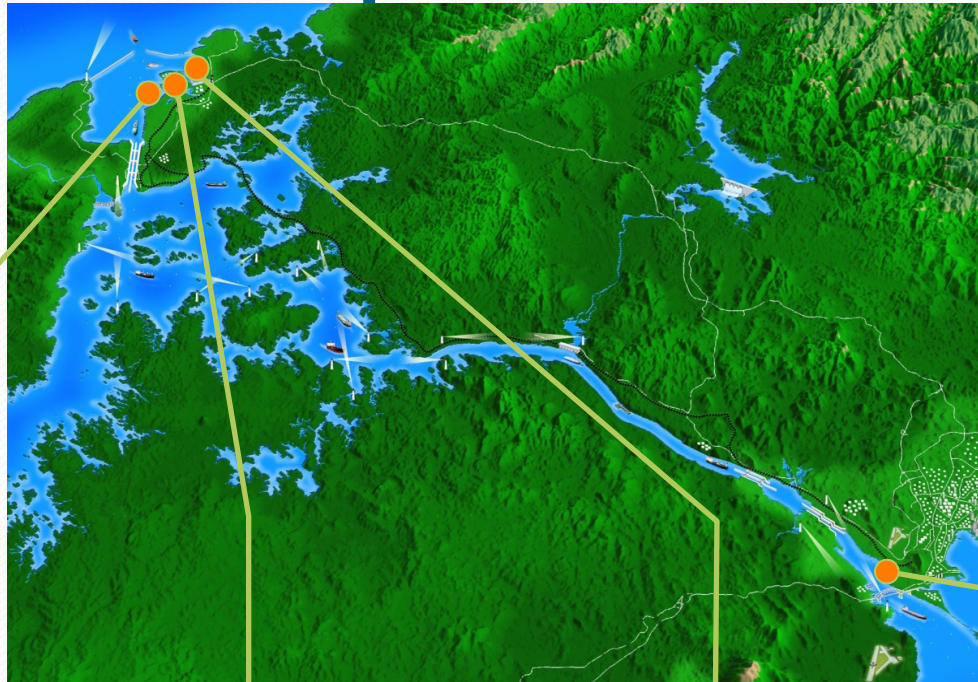
956 Panamax vessels
804 Post Panamax vessels

The Panama Canal - 2014

GAME CHANGER POTENTIAL



Port Development in Panama



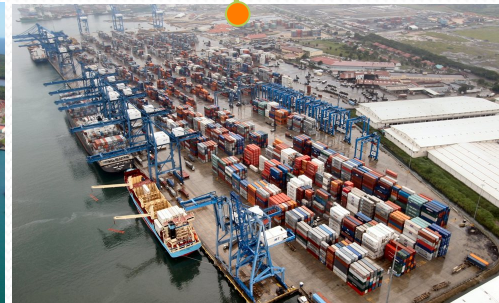
1996: 235K TEUs
2010: 5.6M TEUs
2015: 8.4M TEUs(P)



**Panama Ports Company –
Cristobal**



Colon Container Terminal



**Manzanillo International Terminal
(MIT)**



**Panama Ports
Company -
Balboa**

ACP, 2011

Value-Added Components of Panama's Transportation and Logistics Cluster



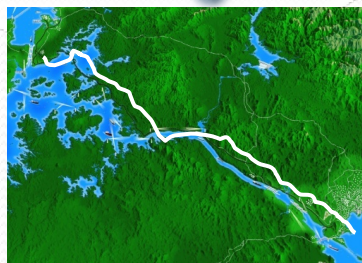
**Transisthmian
Pipeline**



**Colon
Free Zone**



**Technology and
Innovation
Center**



Fiber Optic Duct



Real Estate



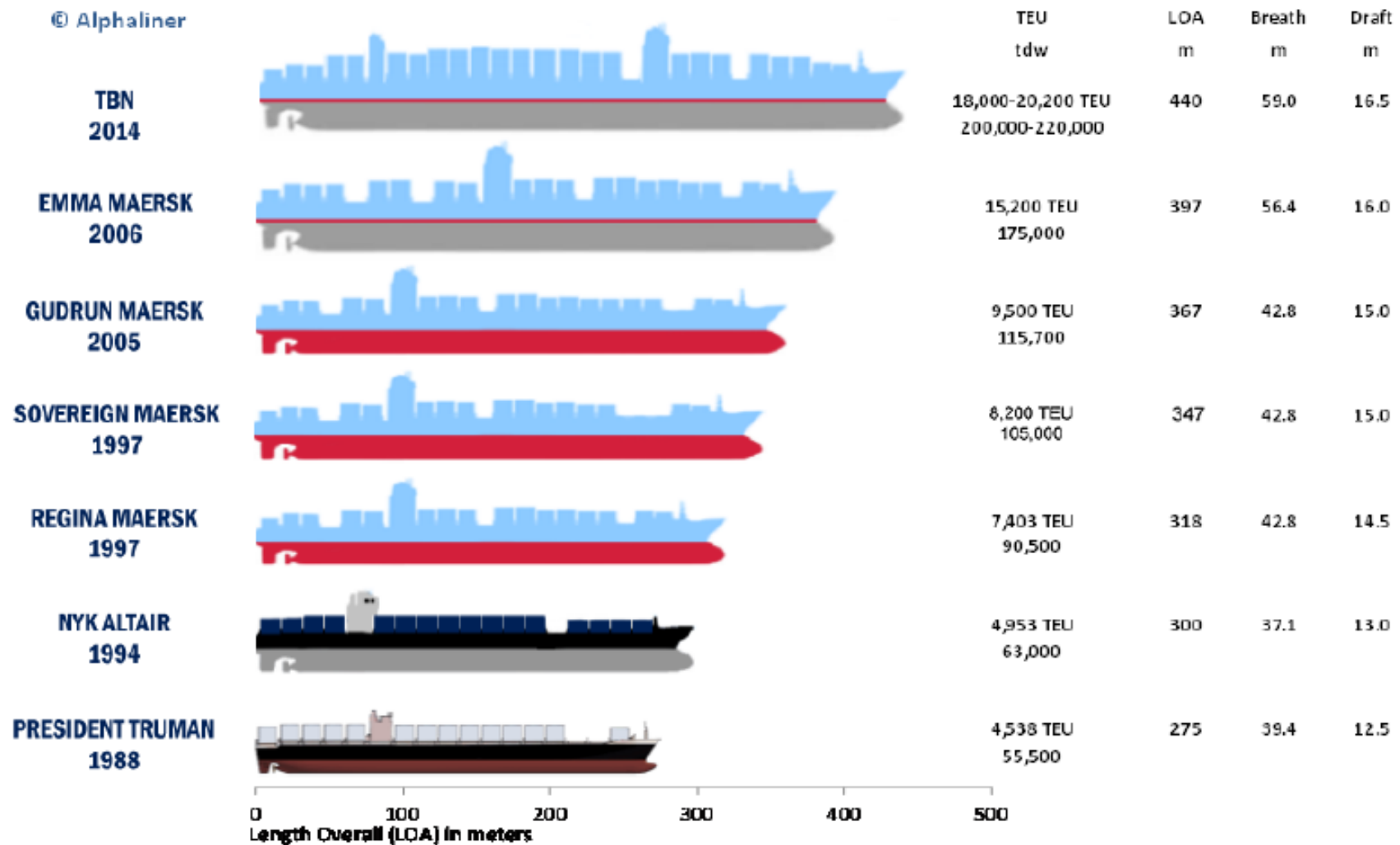
**Banking
Center**



**Panama-Pacific
Special Economic
Zone**

Evolution of the world's largest containerships 1985-2011

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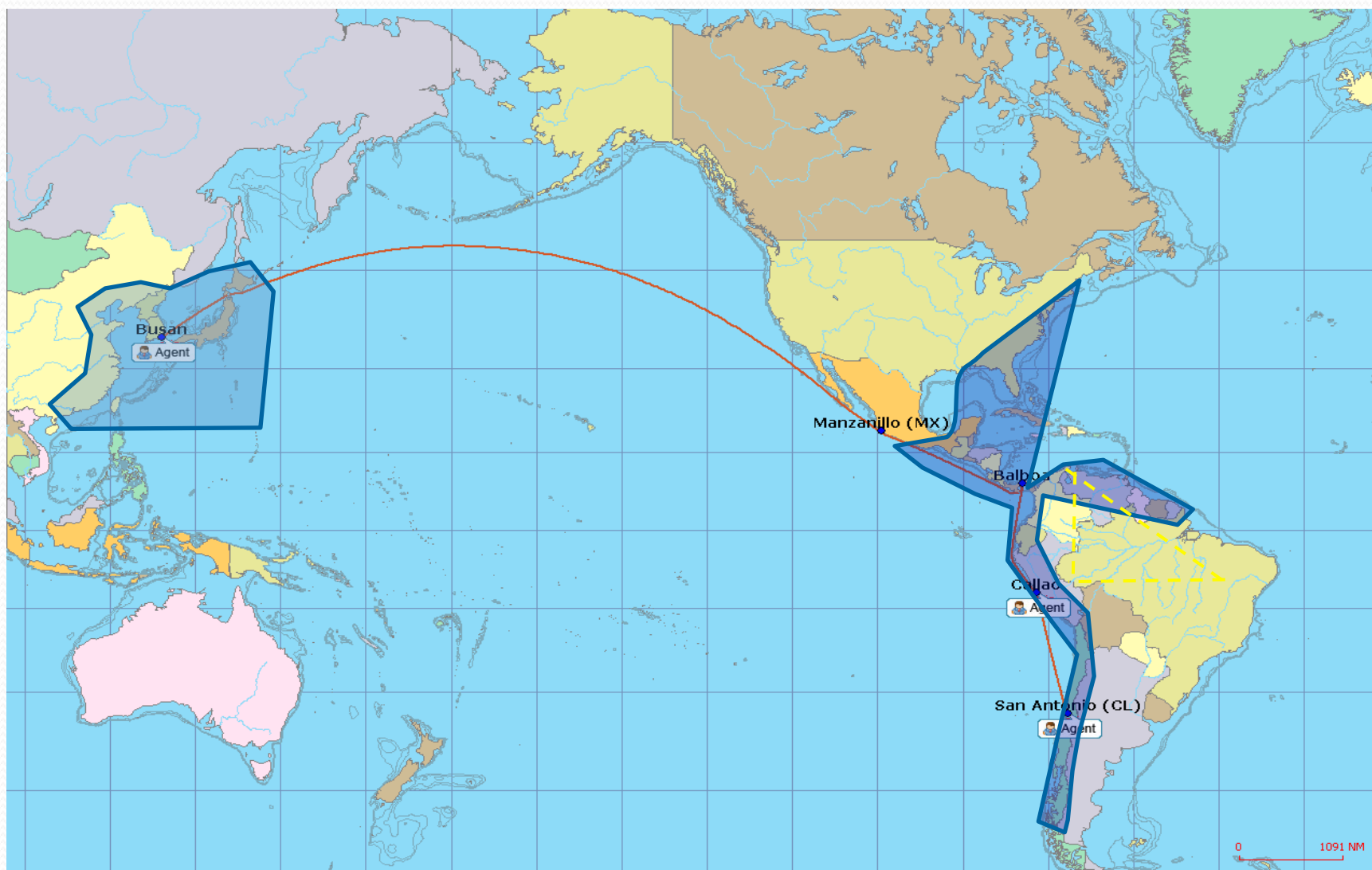
Is Texas Ready for the Bigger Canal?

- Construction on schedule
- Catalyst for the Panama economy – passage, hubs, bunker, value-added services
- It will enhance shipper choice and provide competition to other corridors serving Texas
- ACP forecast modest impacts for the early years
- Not just about containers – bulk will benefit

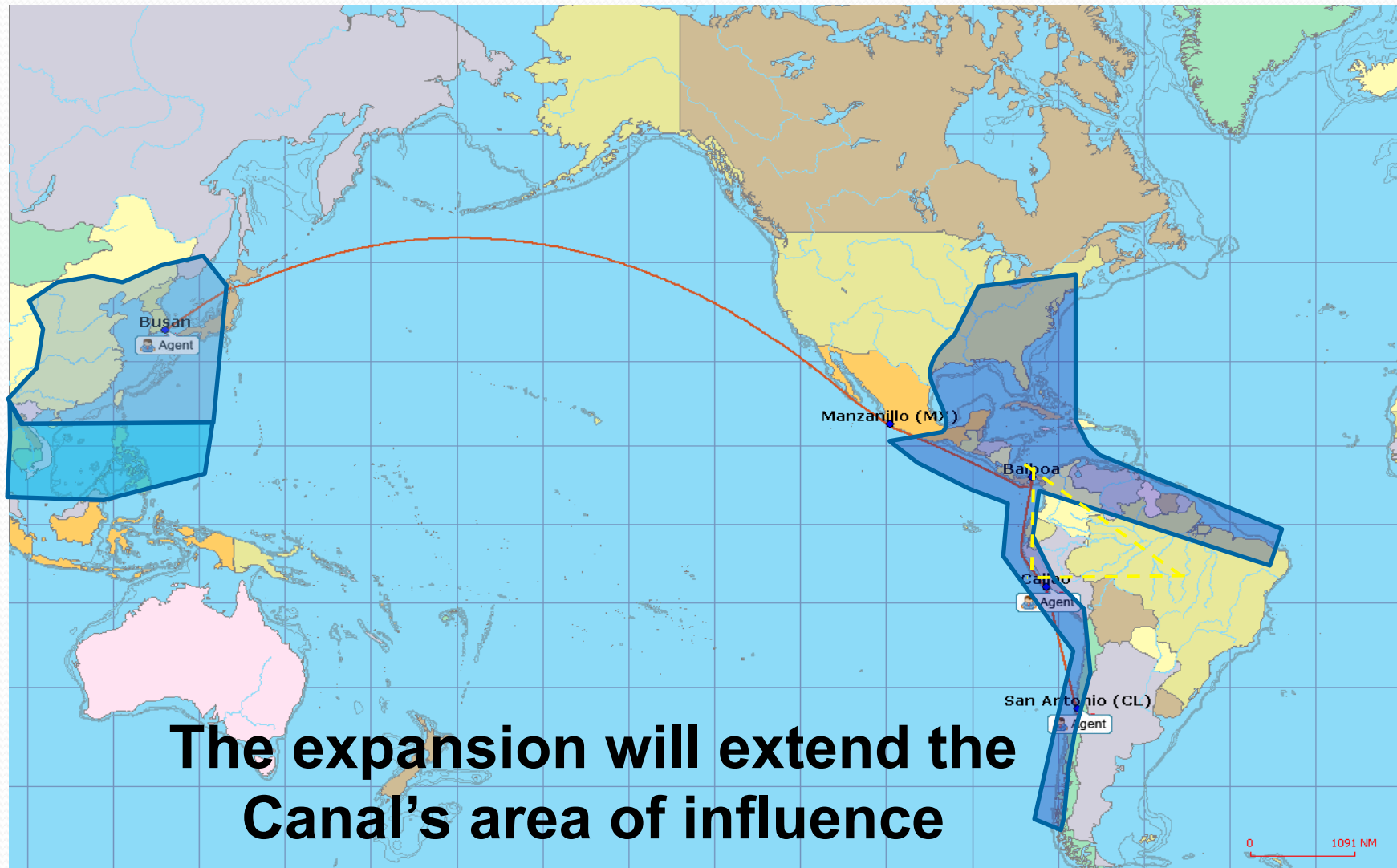


Demand for New Locks

- Demand – commodity flows
- ACP Fees
- Routes and port calls
- Containers – direct or transship?
- Gulf channel drafts limit post-Panamax size
- High level of interest and speculation as the 2014 date gets nearer



ACP, 2011



ACP, 2011



TxDOT Planning for Panama Canal

- Partner with deep water ports, railroad companies and key canal users
- Monitor new services for bulk, break bulk and containers imports and exports
- Determine potential constraints: accessing ports (channels), terminal efficiencies and landside connections, both highway, rail and barge
- Short, medium and long term impacts



Is Texas Ready?

- Short term: Current facilities will serve the increases in trade volumes, but post-Panamax size limited to 45 ft. channel draft
- Medium term: Improved rail access to deep water terminals, planning new terminals near deep water with 50 ft. channels
- Long term: Diversion to other trade corridors if channels remain at 45 ft.
- Overall Texas is a trade beneficiary, especially for exports